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(54) **Process for packaging compressed garments, furnishing articles, and like, and articles realized by said process**

Verfahren zum Verpacken von komprimierten Kleidungsstücken, Garnierungsartikeln und dergleichen und mittels dieses Verfahrens ermittelte Artikel

Procédé pour emballer des vêtements comprimés, des articles de garniture, et similaire, et articles réalisés avec ce procédé

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EP-A- 0 220 980 **GB-A- 1 132 861**

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Description

[0001] The present invention concerns a process for packaging compressed garments, furnishing articles and like. The invention also relates to the articles obtained by the process according to the invention.

[0002] The solution proposed according to the invention provides improvements with respect to two specific problems.

[0003] Particularly, we refer to the problems of lack space always more diffused today for the storing of the products at the factory, with the wholesaler or with the retailer, and for the transport of the products from one place to another.

[0004] The other aspect that is faced up by the present invention refers to the always bigger need of having new and original systems for the promotion of the product, or for the promotion of other products by the advertising or some gadgets.

[0005] Further, the solution according to the present invention allows to obtain a packaging process far more fast with respect to the present packaging processes, particularly avoiding with respect to the traditional process the ironing and enveloping steps.

[0006] In view of the above, the solution suggested according to the present invention allows to realize compressed packaged articles in a very easy way, with a remarkable reduction of the final volume.

[0007] Further, the solution according to the present invention allows to have advertising elements very interesting both for the promotion of the same article and for the promotion of other products and/or services.

[0008] It is therefore specific object of the present invention a process for packaging compressed garments, furnishing articles and like, comprising the subsequent steps of:

- folding the article in a substantially elongated shape;
- rolling up the so folded article;
- introducing the folded and rolled up article in a die of a press;
- subjecting the article to a mechanical pressure;
- extracting the article from the die; and
- providing above and below the compressed article, two paper based material elements;
- packaging the so obtained article employing thermoshrinkable materials.

[0009] Always according to the invention, said packaging step of the article is performed employing thermoshrinkable materials, preferably thermoshrinkable polypropylene.

[0010] Still according to the invention, said mechanical pressure is applied by a hydraulic, oleodynamic, pneumatic, etc. Piston.

[0011] Said die wherein the article is inserted for the pressure can have the desired shape, particularly

rounded, triangular, square, rectangular, etc.

[0012] The present invention also includes the articles obtained by the above process.

[0013] Particularly, said articles can comprise garments, like T-shirts, pants, brassieres, bands, handkerchiefs etc., or towels, sheets, tablecloths, wipers etc.

[0014] Preferably, said article is made by 100% cotton.

[0015] The present invention will be now described, for illustrative but not limitative purposes, according to its preferred embodiments, with particular reference to the enclosed drawings, wherein:

figures 1a-1d show a garment during the various steps of the process according to the invention; and figures 2a-2d respectively show, from the above and laterally, a packaged article according to the invention.

[0016] In the enclosed drawings, reference will be made to a T-shirt, but it is to be understood that the same applies to any other article obtained by the process according to the invention.

[0017] Observing now figures 1a-1d, it can be noted a T-shirt 1 opened (figure 1a), that is then folded (figure 1b), so as to take the substantially elongated shape 2.

[0018] Subsequently, the T-shirt is rolled up (figure 1c), so as to take the shape 3, and introduced within a die (not shown).

[0019] Here the T-shirt is subjected to pressure, until reaching the shape 4 of the figure 1d.

[0020] The amount of the pressure determines the compression of the T-shirt, and consequently the saving of volume.

[0021] After having been extracted from the die, two paperboard discs are applied, the upper one 5 can be seen in figure 2a, and then the article is packaged using thermoshrinkable polypropylene, obtaining the product 6 of figure 2b.

[0022] The paperboard disc 5 realizes a very interesting advertising means since they allow to provide any kind of written message, and can be easily modified.

[0023] Further, they can be a gadget, for example under glasses and like.

Claims

1. Process for packaging compressed garments, furnishing articles and like, comprising the subsequent steps of:

- folding the article in a substantially elongated shape;
- rolling up the so folded article;
- introducing the folded and rolled up article in a die of a press;
- subjecting the article to a mechanical pressure;
- extracting the article from the die; and
- providing above and below the compressed

article, two paper based material elements;

packaging the so obtained article employing thermoshrinkable materials.

2. Process according to claim 1, characterized in that said packaging step is performed employing thermoshrinkable polypropylene. 5
3. Process according to one of the preceding claims, characterized in that said mechanical pressure is applied by a hydraulic, oleodynamic, pneumatic, etc piston. 10
4. Process according to one of the preceding claims, characterized in that said die wherein the article is inserted for the pressure have a desired shape, particularly rounded, triangular, square, rectangular, etc. 15

Patentansprüche 20

1. Verfahren zum Verpacken von komprimierten Kleidungsstücken, Gernierungsartikeln und dergleichen, das folgende Verfahrensschritte enthält:
 - falten des Artikels in eine wesentlich längliche Form;
 - einrollen des so gefalteten Artikels;
 - einführen des gefalteten und eingerollten Artikels in eine Form einer Presse;
 - unterwerfen des Artikels an einen mechanischen Druck;
 - ausnehmen des Artikels aus der Presse;
 - anordnen oberhalb und unterhalb des zusammengepressten Artikels zwei papierbasierte Stoffstrücke;
 - verpacken der so erhaltenen Artikel mit einem wärmeschrumpfbaren Stoff. 25
2. Verfahren nach Anspruch 1, dadurch gekennzeichnet, dass der Verpackungsschritt mit der Anwendung eines wärmeschrumpfbaren Polypropylens durchgeführt wird. 30
3. Verfahren nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass der vorgenannte mechanische Druck durch einen hydraulischen, öldynamischen, pneumatischen und dergleichen Kolben durchgeführt wird. 35
4. Verfahren nach je einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass die vorgenannte Form, in die der Artikel zum Zusammenpressen eingeführt wird, eine gewünschte, insbesondere abgerundete, dreieckige, quadratische, rechteckige und dergleiche Gestalt aufweist. 40 45 50 55

Revendications

1. Procédé pour emballer des vêtements comprimés, des articles de garnitur et similaire, comprenant les phases suivantes:
 - replier l'article en une forme sensiblement allongée;
 - enrouler l'article ainsi replié;
 - introduire l'article replié et enroulé dans une forme d'une presse;
 - soumettre l'article à une pression mécanique;
 - extraire l'article de la presse; et
 - placer audessus et audessous de l'article comprimé deux éléments de matériel à base de papier;
 - emballer l'article ainsi obtenu en utilisant un matériel thermorétractible.
2. Procédé selon la revendication 1, caractérisé en ce que ladite phase d'emballage est réalisée en utilisant un propylène thermorétractible.
3. Procédé selon une des revendications précédentes, caractérisé en ce que ladite pression mécanique est appliquée par un piston hydraulique, oléodynamique, pneumatique et similaire.
4. Procédé selon une des revendications précédentes, caractérisé en ce que ladite forme, dans laquelle l'article est introduit pour la compression, a une configuration désirée, en particulier arrondie, triangulaire, carrée, rectangulaire et similaire.

FIG. 1d

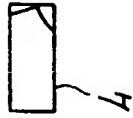


FIG. 1c

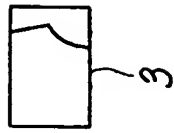


FIG. 2a

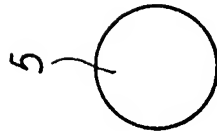


FIG. 2b

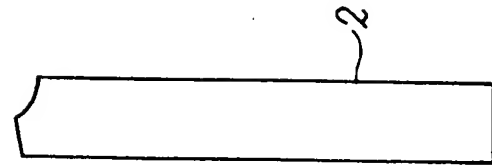
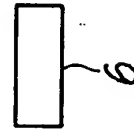


FIG. 1b

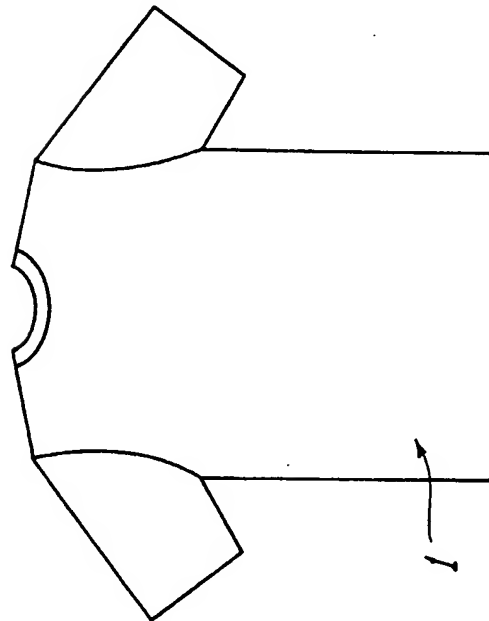


FIG. 1a